Abstract of the Disclosure

A method of manipulating a microscopic quantity of material is disclosed wherein an optical fiber probe having a sharp tip with a hole fabricated therein is used to extract the material. The hole is sufficiently small that upon immersion of the sharp tip in the material a virtual seal forms to inhibit penetration of the material into the hole. A laser pulse is sent down the fiber probe to disrupt the seal and promote entry of the material into the hole. The probe can also be used in a reverse manner to deliver trapped material from the hole into a targeted region. The hole also permits an annular light intensity distribution at and near the exit of the probe tip which can be used to optically trap particles.